

Specifications

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| UML/OOP/JAVA Project |
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| Group 3  NGANKAM NGOUNOU Paul-henry  TANKWA YONGHEU Prince Jordan  BALOG Phil Georges Arthur  TEMA NGANKAM Gregori |

# Key words:

## Plugin JXR:

First of all, a plugin is a complementary tool used to add more functions to a principal application or program.

A Plugin JXR is a complementary tool used to generate a cross-reference page of the project’s (main and test) sources.

## Plugin Surefire:

It a complementary tool used during the test phase of the build lifecycle to execute the unit tests of an application. It generates reports in two different file formats: .txt (for text files) and .xml (for XML files)

## Plugin Shade:

It is a complementary tool which provides the capability to package the artifact in an uber-jar, including its dependencies and to shade, that is, rename the packages of some of the dependencies.

## Uber-Jar (over-jar):

It is a superior jar that contains both the package *and* all its dependencies in one single JAR file. In can also be seen as a big JAR containing all the other JAR files needed to run a program and which eases its execution.

## DP Singleton:

It is a software design pattern whose objective is to restrict the instantiation of a class to a single instance or object. It is used when exactly one object is needed to coordinate operations in a system.

# Context:

Our project is about recreating an old game called Boulder Dash whose concept is to dig the ground to pick a certain number of diamonds in order to access the next level. The player has to avoid enemies. Rocks and diamonds may fall on him.

# Needs:

The game needs to be stopped whenever a rock, an enemy or a diamond hits the player.

Needs to generate diamonds whenever there is no diamond in a given level by knocking his enemies with a rock or a diamond that may create a chain reaction. This technique will destroy the hard walls.

# Problematic:

How will we recreate the game and store it on a database while respecting all the constraints given to us?

# Constraints:

* They should realize up to 5 levels via a parameter or a record in our database. The levels should imperatively be stored in a database.
* No SQL query should be found in the code; we will use stored procedures.
* Use of Java, Maven, Git, Junit.
* Only the Swing graphic framework is permitted.

# Human resources:

We are a team of four members made of:

* **Analysis manager**: TANKWA Prince
* **Organization manager:** TEMA Gregori
* **Design manager:** BALOG Phil
* **Implementation manager (Group leader):** NGANKAM Paul-Henry

# Software:

* **Visual Paradigm CE 16.0**
* **Eclipse IDE**
* **MS Word**
* **Java**
* **Maven**
* **MS PowerPoint**

# Provisional Schedule:

